

CLAIMS:

1. A method for ceramizing starting glass of glass-ceramics into glass-ceramics, comprising at least the following steps:
 - 1.1 the starting glass is heated from an initial temperature T_1 to a temperature T_2 which is disposed above the glass transformation temperature T_G at which crystallization nuclei are precipitated;
 - 1.2 the glass is held at the temperature T_2 for a period t_2 for the precipitation of crystallization nuclei;
 - 1.3 the glass is further heated to a temperature T_3 at which a crystal phase grows on the nuclei formed following step 1.1 and 1.2;
 - 1.4 the glass is held for a period t_3 at a temperature T_3 or heated during this period to a higher temperature T_4 until the predetermined properties of the glass-ceramics have been reached;
 - 1.5 the control of the temperature curve is performed with the help of a control loop comprising at least one temperature sensor for sensing the temperature and a heating unit as an actuator, wherein
 - 1.6 the heating unit comprises IR radiators for heating the glass to be relaxed with a thermal dead time of less than 10 secs., especially < 5 secs.
2. A method as claimed in claim 1, wherein the heating unit comprises IR radiators of a high color temperature.
3. A method as claimed in claim 2, wherein the IR radiators are short-wave IR radiators with a color temperature > 1,500°C, especially > 2,000°C, especially preferably > 2,400°C, even more preferably > 2,700°C.
4. A method as claimed in one of the claims 1 to 3, wherein the IR radiators of the heating unit comprise in a bordered space in a comprehensive manner reflective or backscattering boundary surfaces.
5. A method as claimed in claim 4, wherein the reflective or backscattering boundary surfaces comprise one or mixtures of several of the following materials: Al_2O_3 ; BaF_2 ; $BaTiO_3$; CaF_2 ; $CaTiO_3$; $MgO \cdot 3.5 Al_2O_3$; MgO ; SrF_2 ; SiO_2 ; $SrTiO_3$; TiO_2 ; quarzal; spinel; cordierite; cordierite sintered glass ceramics.
6. A method as claimed in one of the claims 4 or 5, wherein the bordered space is an IR radiation cavity.
7. A method as claimed in one of the claims 1 to 6, wherein the heating temperature to temperature T_2 is less than 120 secs., preferably less than 90 secs., and the temperature T_2 is less than 800°C.
8. A method as claimed in one of the claims 1 to 7, wherein the holding temperature t_2 at temperature T_2 is in the range of 60 secs. to 3,600 secs.
9. A method as claimed in one of the claims 1 to 8, wherein the heating time from temperature T_2 to temperature T_3 is less than 90 secs., preferably less than 60 secs., and the temperature T_3 is higher than 700°C.

